

EXECUTIVE SUMMARY

State, local, and Federal agencies currently use various methods to sample and analyze chemical contaminants in fish and shellfish in order to develop fish consumption advisories. A 1988 survey, funded by the U.S. Environmental Protection Agency (EPA) and conducted by the American Fisheries Society, identified the need for standardizing the approaches to evaluating risks and developing fish consumption advisories that are comparable across different jurisdictions (Cunningham et al., 1990; Cunningham et al., 1994). Four major components were identified as critical to the development of a consistent risk-based approach: standardized practices for sampling and analyzing fish, standardized risk assessment methods, standardized procedures for making risk management decisions, and standardized approaches for communicating risk to the general public (Cunningham et al., 1990).

To address concerns raised by the survey respondents, EPA is developing a series of four documents designed to provide guidance to State, local, regional, and tribal environmental health officials responsible for designing contaminant monitoring programs and issuing fish and shellfish consumption advisories. It is essential that all four documents be used together, since no single volume addresses all of the topics involved in the development of risk-based fish consumption advisories. The documents are meant to provide guidance only and do not constitute a regulatory requirement. This document series includes:

Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories

- Volume I: Fish Sampling and Analysis
- Volume II: Risk Assessment and Fish Consumption Limits
- Volume III: Risk Management
- Volume IV: Risk Communication.

Volume I was first released in September 1993 and this current revision to the Volume I guidance provides the latest information on sampling and analysis procedures based on new information provided by the Environmental Protection Agency. The major objective of Volume I is to provide information on sampling strategies for a contaminant monitoring program. In addition, information is provided on selection of target species; selection of chemicals as target analytes; development of human health screening values; sample collection procedures including sample processing, sample preservation, and shipping; sample analysis; and data reporting and analysis.

Volume II was released in June 1994 and provides guidance on the development of risk-based meal consumption limits for the high-priority chemical fish contaminants (target analytes). In addition to the presentation of consumption limits, Volume II contains a discussion of risk assessment methods used to derive the consumption limits as well as a discussion of methods to modify these limits to reflect local conditions.

Volume III will be released in FY 1996 and provides guidance on risk management procedures. This volume provides information regarding the selection and implementation of various options for reducing health risks associated with the consumption of chemically contaminated fish and shellfish. Using a human health risk-based approach, States can determine the level of the advisory and the most appropriate type of advisory to issue. Methods to evaluate population risks for specific groups, waterbodies, and geographic areas are also presented.

Volume IV was released in March 1995 and provides guidance on risk communication as a process for sharing information with the public on the health risks of consuming chemically contaminated fish and shellfish. This volume provides guidance on problem analysis and program objectives, audience identification and needs assessments, communication strategy design, implementation and evaluation, and responding to public inquiries.

The EPA welcomes your suggestions and comments. A major goal of this guidance document series is to provide a clear and usable summary of critical information necessary to make informed decisions regarding the development of fish consumption advisories. We encourage comments, and hope this document will be a useful adjunct to the resources used by the States, local governments, and Tribal bodies in making decisions regarding the development of fish advisories within their various jurisdictions.